REMARKS

Request for Withdrawal of Finality:

Applicant notes that the fully executed Rule 132 Declaration submitted herewith was previously submitted to the Office on April 18, 2003, and was received by the Office on April 23, 2003. Specifically, the signed Declaration was received in the USPTO Mail Room on April 23, 2003, as evidenced by the date-stamped post card received by Applicant's counsel. A copy of the date-stamped post card is also submitted herewith.

Insofar as the executed Declaration was submitted to the Office, but was not considered on its merits, Applicant respectfully requests that the finality of the present Office Action with withdrawn.

Request for Entry and Consideration of the Attached Rule 132 Declaration of Inventor Alan Ebringer:

Applicant requests entry and consideration of the executed Rule 132 Declaration of inventor Alan Ebringer, submitted herewith.

The continued rejection of Claims 4, 9-16, and 18 under 35 USC §112, first paragraph, is respectfully traversed.

As noted earlier, all of the claims are now limited to a method or a kit for diagnosing "multiple sclerosis, Creutzfeld-Jakob disease, or spongiform encephalopathy in mammals." Insofar as the Office has indicated that the subject matter of the present invention is enabled for these specific disease states, Applicant submits that the rejection is untenable.

With regard to use of the term "spongiform encephalopathy" in Claim 1 (as opposed to "bovine spongiform encephalopathy") Applicant makes the following points:

1) Applicant is not required to submit any working examples to satisfy the enablement requirement. See *In re Robbins*, 166 USPQ 552 (CCPA 1970).

2) Applicant is not required to submit human testing to satisfy the enablement or utility requirements. See, for example, the Guidelines for Examination of Applications for Compliance with the Utility Requirement (first promulgated on 1/31/1995 (1170 O.G. 482): "Data generated using... testing in animals almost invariably will be sufficient to support an asserted therapeutic... utility."

3) Another Prusiner prior art document supplied by the Office in the prosecution of application Serial No. 09/269,607 clearly indicates that spongiform encephalopathy in bovines (*i.e.*, BSE) is transmissible to other mammals, including non-human primates. This document also clearly shows the extremely close relationship between BSE and other forms of spongiform encephalopathy, such as kuru, Creutzfeldt-Jacob disease (CJD), and Gerstmann-Sträussler-Scheinker disease (GSS). Specifically, see page 667 of the Prusiner paper entitled "Biology and Genetics of Prior Diseases," copy attached as Exhibit C:

> Brain extracts from BSE cattle have transmitted disease to mice, cattle, sheep, and pigs.... Of particular importance in the BSE epidemic is the recent transmission of BSE to a nonhuman primate, the marmoset....

Regarding the very close relationship of BSE to other spongiform encephalopathies, see the opening comments of the Prusiner paper, at page 656:

> A set of remarkable discoveries in the past three decades has led to the molecular and genetic characterization of the transmissible pathogen causing scrapie in animals and a quartet of illnesses in human: kuru, CJD, GSS, and FFI (fatal familial insomnia).

The article goes on to discuss the concept of prions as a unique type or class of proteins. The article also concludes that prions are the causative agent or at least a contributing factor in all of the spongiform encephalopathies discussed in the article (scrapie, BSE, kuru, CJD, GSS, and FFI).

Therefore, because, BSE is transmissible to other species (as shown by the Prusiner article), it is extremely reasonable to conclude that a test that diagnoses spongiform encephalopathy in bovines will also reveal spongiform encephalopathy in other mammals too.

With regard to use of antigens other than the whole Acinetobacter organism, Applicant respectfully traverses this rejection. In support thereof, Applicant re-submits herewith the executed Rule 132 Declaration of inventor Alan Ebringer. In his declaration, Dr. Ebringer very clearly demonstrates, using objective scientific evidence, that sera from humans suffering from multiple sclerosis contain elevated levels of antibodies specific to *Acinetobacter* spp. Insofar as the specification as filed clearly

indicates that the method described therein is applicable to the diagnosis of multiple sclerosis, Dr. Ebringer's declaration provides overwhelmingly convincing evidence that the invention functions exactly as described in the specification, using antigens other than whole *Acinetobacter* species.

In particular, note that Dr. Ebringer's declaration describes fabricating ELISAs to detect antibodies specific to five (5) different species or strains of bacteria of the genus Acinetobacter. See paragraph 8 of Dr. Ebringer's declaration. In comparing 26 patients confirmed to have MS, all 26 patients exhibited significantly increased levels of anti-Acinetobacter antibodies as compared to normal controls. This included increased levels of IgA, IgG and IgM anti-Acinetobacter antibodies.

The ELISAs described in Dr. Ebringer's declaration were read in blind format, with the experimenter gathering the results not knowing whether the samples being measured were test samples or control samples. Note also that the experiments presented in Dr. Ebringer's declaration were also deemed suitable for publication, and have, in fact, appeared in a peer-reviewed journal article (which has been made part of Dr. Ebringer's declaration).

Additionally, paragraph 12 of Dr. Ebringer's declaration describes an experiment in which the polypeptide QNF**ISRFAWGEV**NSR was used as the test antigen. The underlined residues correspond to SEQ. ID. NO. 2 of the present application. This experiment clearly shows that the invention disclosed in the application functions not only with whole Acinetobacter species, but isolated antigen take from the Acinetobacter.

The data presented in Dr. Ebringer's declaration clearly indicate that the subject invention, as described in the specification as filed, functions to indicate the presence of CJD, MS, and spongiform encephalopathy in a mammalian test subject, using isolated antigens derived from Acinetobacter.

In light of the executed Rule 132 Declaration of Dr. Ebringer submitted herewith, Applicant respectfully submits that the rejection of Claims 4, 9-16, and 18 under 35 USC §112, first paragraph is no longer tenable. Withdrawal of the same is respectfully requested.

CONCLUSION

Applicant submits that the application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

Joseph T. Leone, Reg. No. 37,170
DeWitt Ross & Stevens S.C.
8000 Excelsior Drive, Fourth Floor
Madison, WI 53717-1914
608-831-2106 (fax)
608-831-2100